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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,731	04/10/2007	Javier Ara Pinilla	0064-P04078US00	8705

110 7590 03/13/2008

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EXAMINER	
ROBINSON, JAMES MARSHALL	
ART UNIT	PAPER NUMBER
4148	

MAIL DATE	DELIVERY MODE
03/13/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,731	ARA PINILLA ET AL.	
	Examiner	Art Unit	
	JAMES M. ROBINSON	4148	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 April 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 1 & 2** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Phrases used in claim 1 and claim 2 are vague and indefinite. Phrases in claim 1 that are vague and indefinite include: --while being especially conceived to act as a

bridging element-- ; --in order to reduce the corresponding pitches-- ; --where respective spherical bearings are housed with a diametral pitch-- ; --connected, through a slot with the exterior-- ; the latter, in turn, passing through the pitch or hole which the head of a spherical screw has for this purpose--. The vague and indefinite limitations in claim 1 are appropriately claimed in claim 5.

The phrase –with the capacity to rotate around themselves-- in claim 2 is vague and indefinite. It is required that the limitation be appropriately corrected.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1-2, & 5** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Taylor et al. (US 5653707)** in view of **Ballier (US 2001/0051806).**

Regarding claims 1 & 5, Taylor discloses:

> external wrist fixator (11) adapted to act as a bridging element between the forearm and the hand that immobilises the wrist in any selected position, fixator having a main actuator (17), and a pair of bars (13, 15), each coupled at one end to said main actuator (col. 4, lines 8-9) and having a support (21) at the other end adapted to support a device operable to be inserted into a bone(19), said bars being adjustable both longitudinally (col. 5, lines 31-32) and angularly (75) in said main articulator,

each support having pin connectors (21); each support capable of being longitudinally and angularly adjusted relative to its associated arm, and each of said supports being provided with a pair of holes for receiving an associated fastening device intended for insertion into a bone (fig. 1) ;

main articulator (17) comprising an extended body provided with a pair of identical saddles (29, 31) and a transverse screw (63), said saddles having concave internal surfaces creating cylindrical segments (col. 5, lines 3-4), connected to one another by means of an axial slot (73) adapted to be narrowed by tightening said transverse screw in order to close said cylindrical segments (col. 6, lines 38-40),

Taylor fails to teach:

spherical bearings housed between said segments, with a diametral bore that is connected, through a slot with the exterior of the bearing, one of said bars being received in said bore in order to allow for tightening of said one end of the bar,

spherical screw having a spherical head with a cylindrical bore adapted to receive the other end of the one bar through which it is linked to the respective support.

However, Ballier teaches spherical bearings (50) housed between segments (10), with a diametral bore ((5); ([0036], line 10)) that is connected, through a slot (52)

with the exterior of the bearing, one of said bars being received in said bore in order to allow for tightening of one end of the bar ([0036], lines13-15).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Taylor with the spherical bearings housed between said segments, with a diametral bore that is connected, through a slot with the exterior of the bearing, one of said bars being received in said bore in order to allow for tightening of said one end of the bar of Ballier. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods. The combination would not change their respective functions. The combination would have yielded the predictable result of providing such an improved bar-to-bar connector which allows the bars to be pivoted or angled relative to one another about an axis transverse to their longitudinal axes (Taylor: col. 2 lines 61-64).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Taylor with spherical screw having a spherical head with a cylindrical bore adapted to receive the other end of the one bar through which it is linked to the respective support. The use of spherical screws as fastening means is old and known in the art. Taylor teaches "[i]t should be understood that the number and type of pins 19 and connectors 21, or the like, may vary depending on the bone structure, etc…, as will now be apparent to those skilled in the art. (col. 4, lines 16-19).

Regarding claim 2, Taylor teaches claimed limitations above, but fails to teach spherical bearings (10) are located on the pitches (2) with the capacity to rotate around themselves, allowing for the bars' (13) position to be changed in any direction.

However, Ballier teaches spherical bearings (50) are located on the pitches (69) with the capacity to rotate around themselves [0036], allowing for the bars' (40) position to be changed in any direction.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Taylor with the spherical bearings are located on the pitches with the capacity to rotate around themselves, allowing for the bars' position to be changed in any direction of Ballier. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods. The combination would not change their respective functions. The combination would have yielded the predictable result of providing such an improved bar-to-bar connector which allows the bars to be pivoted or angled relative to one another about an axis transverse to their longitudinal axes (Taylor: col. 2 lines 61-64).

5. **Claims 3 & 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Taylor et al. (US 5653707)** in view of **Ballier (US 2001/0051806)** as applied to claims above, and further in view of **Huebner (US 5624440)**.

Regarding claim 3, Taylor's invention as modified by Ballier, discloses all of the claimed limitations from above except for supports' holes are connected to the exterior by means of respective lateral slots which, by allowing a slight lateral oversizing of said

holes with respect to the nails intended for insertion into the bone, are pinched over said nails when they are definitively fixated to the ends of the corresponding bars.

However, Huebner teaches supports' (14) holes (62) are connected to the exterior by means of respective lateral slots (28) which, by allowing a slight lateral oversizing of said holes (62) with respect to the nails (18) intended for insertion into the bone, are pinched over said nails when they are definitively fixated to the ends of the corresponding bars (12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Taylor with the supports' holes are connected to the exterior by means of respective lateral slots which, by allowing a slight lateral oversizing of said holes with respect to the nails intended for insertion into the bone, are pinched over said nails when they are definitively fixated to the ends of the corresponding bars of Ballier. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods. The combination would not change their respective functions. The combination would have yielded the predictable result of providing a support means capable of adjustably positioning nails in the bones' of users.

Regarding claim 4, Taylor's invention as modified by Ballier, discloses all of the claimed limitations from above except for supports' slots open towards a concave curved face on which a bearing traversed by the spherical annular head screw's threaded shank is adapted; these screws are complemented by respective nuts.

However, Huebner teaches supports' (14) slots (28) open towards a concave curved face (26) on which a bearing (36) traversed by the spherical annular head screw's (34) threaded shank (34) is adapted; these screws (34) are complemented by respective nuts (44).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Taylor with supports' slots open towards a concave curved face on which a bearing traversed by the spherical annular head screw's threaded shank is adapted; these screws are complemented by respective nuts of Ballier. All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods. The combination would not change their respective functions. The combination would have yielded the predictable result of providing a support means capable of adjustably positioning nails in the bones' of users.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Hardy (US 5429637), Hollawell (US 20060235383), Agee (US 20040249375), Boudard (US 20020004659), Schoenefeld (US 6709433), Mears (US 4620533), Taylor (US 5690633), Fietti (US 4782842).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES M. ROBINSON whose telephone number is (571)270-3867. The examiner can normally be reached on Mon-Fri 7:30 AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrell McKinnon can be reached on (571)272-4797. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James M. Robinson

February 25, 2008

/Terrell L Mckinnon/

Supervisory Patent Examiner, Art Unit 4148